

CLAIMS

1. A safety indwelling needle, comprised of a metallic inner needle which pierces a skin of a patient and reaches a blood vessel; and a soft outer needle which is located outside the inner needle and placed within the blood vessel, comprising:

a holder sleeve having a retracting mechanism which can hold the inner needle after a puncture, from a proximal end to a distal end thereof and does not hold the outer needle, characterized in that

the retracting mechanism includes: an urging means for urging the inner needle to a side opposite to the outer needle with respect to an axial direction of the holder sleeve; an actuator which moves together with the inner needle when it is withdrawn and has a puncture position retainer for keeping the inner and outer needles ready for the puncture and an inner needle retraction actuating portion for allowing for the retraction actuation of the inner needle; and a slit formed in the holder sleeve for assuring a movement path of the actuator,

the puncture position retainer has a puncture position engagement portion whereby the actuator is engaged with the holder sleeve at a position on an outer needle side,

the inner needle retraction actuating portion includes: an actuating portion for releasing the actuator from an engaged state of the puncture position engagement portion into an

urged state by the urging means; and an actuator housing for enclosing the actuator after retraction of the inner needle.

2. The safety indwelling needle according to Claim 1,
5 wherein the actuator housing portion is constructed of wall portions formed standing at both sides of the slit in the holder sleeve on the side opposite to the outer needle and a protective cover portion joining the edges of the wall portions.

10 3. The safety indwelling needle according to Claim 2, wherein the protective cover portion is formed so as to function as a tail plug for closing an opening of the holder sleeve on the side opposite to the outer needle.

15 4. The safety indwelling needle according to any one of Claims 1 to 3, wherein the retracting mechanism has a stopper for arresting the inner needle moved to the side of the holder sleeve opposite to the outer needle, the stopper includes
20 arrest engagements for stopping the inner needle stored in the holder sleeve relative to the holder sleeve.

25 5. The safety indwelling needle according to any one of Claims 1 to 4, wherein, on the outer needle side of the holder sleeve, a grip portion to be held when the outer and inner

needles are punctured into the skin of the patient is formed at a position other than a position where the actuating portion of the actuator is arranged.

5 6. The safety indwelling needle according to any one of Claims 1 to 5, further comprising a cap which covers the outer and inner needles while keeping them ready for puncture and disables the function of the actuating portion.

10 7. A safety indwelling needle, comprised of a metallic inner needle which pierces a skin of a patient and reaches a blood vessel; and a soft outer needle which is located outside the inner needle and placed within the blood vessel, comprising:

15 a holder sleeve having a retracting mechanism which can hold the inner needle after a puncture, from a proximal end to a distal end thereof and does not hold the outer needle, characterized in that

20 the retracting mechanism includes: a coil spring for urging the inner needle to a side opposite to the outer needle with respect to an axial direction of the holder sleeve; an actuator which is arranged between the coil spring and the inner needle, moves together with the inner needle when it is withdrawn and has a puncture position retainer for keeping the inner and outer needles ready for the puncture and an
25 inner needle retraction actuating portion for allowing an

the withdrawal actuation of the inner needle; a slit formed in the holder sleeve for assuring a movement path of the actuator; an actuator housing for enclosing the actuator after retraction of the inner needle; and a stopper for stopping the inner needle, having been moved to a rear side with respect to the axial direction of the holder sleeve,

the puncture position retainer has a puncture position engagement portion whereby the actuator is engaged with the holder sleeve at a position on an outer needle side and an engaged state can be released,

the inner needle retraction actuating portion includes: an actuating portion for releasing the actuator from the engaged state of the puncture position engagement portion into an urged state by the coil spring,

the actuator housing portion is constructed of wall portions standing at both sides of the slit in the holder sleeve on the side opposite to the outer needle and a protective cover portion joining the edges of the wall portions, the protective cover portion being formed so as to function as a tail plug for closing an opening of the holder sleeve on the side opposite to the outer needle, and

the stopper includes arrest engagements for stopping the inner needle held in the holder sleeve relative to the holder sleeve.